

d.) Remarks

In the instant Office Action an objection to the drawings and a rejection under §112 are stated, based on an interpretation of the specification that the sensing means and means for detecting a transition from switched on to switched off conditions are not shown in the drawings, and therefore cannot be recited in the claims. Applicant has removed the sensing means from the claims to alleviate that problem. However, the means for detecting a transition are clearly described in the specification and drawings as circuit 11 of Figures 1 and 2, and the description of paragraphs [0020] to [0023]. Note page 8, line 17 et seq.: When the room switch is turned off, This portion of the specification clearly explains how the transition from on-condition to off-condition is detected. Thus the objection and rejection under §112 have been overcome.

The main reference cited in the instant rejections under §102 and §103 is the Pickering '083 patent. Pickering describes an integral emergency lighting system that uses the same AC branch circuit wiring to provide emergency DC power upon interruption of the AC supply. In a normal state, 110V (AC), 60 Hz power is provided to the light branch circuit K3 through the normally open contact of power relay 3 contacts 3a-3b, 3d-3e while power relay 3 is energized. During the loss of main power (for example, 110VAC), power relays 2, 3 de-energize so that 24V emergency power from a DC battery 51 is provided to the lighting branch circuit K3 through the normally closed contact of power relay 2,

contacts 2a-2b, 2c-2d and normally closed contacts of power relay 3, contacts 3a-3c, 3d-3f.

The DC detector and ballast 9 of FIG. 2 is designed to monitor the lighting branch circuit and detect when emergency power of 24V (DC) is present, and thereby switches the emergency power of 24V (DC) to a DC/AC inverter ballast circuit 8, which, in turn, drives a light fixture 12, such as a 40 W fluorescent lamp. Note that the K3 on/off lighting branch switch is completely absent from this functional scheme. Switch K3 functions only to complete the circuit from the hot side of the 110VAC line to relay contacts 10D-10F, which delivers power to the light fixture, and thence through relay contacts 11A-11C, then 10C-10A to ground.

The key question is, what happens in normal operation when switch K3 is opened to switch off the lights? The result is that the light fixture 13 turns off immediately, and remains off until switch K3 is closed once again, or until an AC power failure actuates the emergency circuit. It is significant that opening the switch K3 does not carry out or cause any testing of the emergency lighting system, as in the present invention.

The rejection states that Pickering includes "...means for detecting a transition from a switched on to a switched off condition on said switch leg (K3) and in response actuating said relay contact means to disconnect the regular utility power (110Vac, 60Hz) from the at least one emergency lighting fixture (12) and connect said emergency power source (24Vdc) to the at least one emergency

lighting fixture (12) for a inherent brief test period before restoration of regular utility power...”. This statement is factually completely wrong! The Pickering emergency response is initiated by the de-energization of relays 2 and 3 at the breaker panel, which is upstream from the switch K3. Switch K3 is not connected to this emergency response initiation arrangement, and has absolutely no effect on it. When switch K3 is opened during normal AC operation, there is absolutely no testing of the emergency lighting system.

A word search of Pickering reveals that the words “test”, or “testing” are completely absent from the reference. There is no provision whatsoever for testing the emergency system in Pickering, whether “inherent” or overt. Thus the Pickering disclosure cannot support a rejection under either §102 or §103, and the rejections stated in the instant Action cannot be sustained.

The secondary reference, Bavaro, also describes an emergency lighting system that is combined with a room occupancy sensor, intrusion sensor, ambient light detector, manual dimmer, no-load protection, and the like. It is acknowledged that Fig. 8 of Bavaro discloses a wall switch 106 connected to an opto-isolated transistor switch, as stated in the rejection. However, the output of the transistor is connected to drive inverter 808, not to conduct a brief test of the emergency lighting system. Indeed, applicant has searched in vain for any description or mention of a testing function for the emergency lighting portion of Bavaro. There is no teaching of any testing function in Bavaro, and no guidance as to how the wall switch 106 of Bavaro could be combined with a testing feature,

as taught in the present invention. Thus it is asserted that the Bavaro reference is also insufficient to sustain a rejection under §103.

In the claims, claim 1 has been amended to remove the recitation of sensing means for detecting power failure, thereby obviating the objection and rejection relating thereto. Rather, the relay contact means recitation has been amended to state that the relay contacts connect to emergency operating power in response to power failure in the regular utility power. This is described in the specification on page 7, line 7, and it is asserted that this amended recitation overcomes the remaining objection and rejection under §112.

It is noted that the means plus function recited in the final clause of claim 1 is unique with respect to the prior art and deserving of patent protection. This clause recites means for detecting the transition from a switched on condition to a switched off condition on the switch leg, and in response actuate the relay contact means to disconnect the regular utility power from emergency lighting fixture, and connect the emergency power source to the emergency lighting fixture for a brief test period. Neither Pickering nor Bavaro has any teaching relating to this feature, nor does their combination make this feature obvious. Thus claim 1 should be allowed.

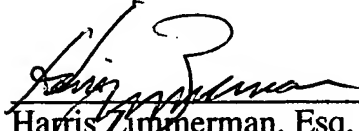
Claims 2-8 depend from allowable claim 1, further defining that patentable structure, and should also be allowed. Note that claims 4 and 7 have been amended to remove the recitation of sensing means, in concert with the amendment of claim 1.

Claims 5-7 cover an aspect of the invention that has great practical utility: due to the fact that the emergency system is tested every time the lighting system is turned off, there is no need to provide a separate emergency test switch for periodic validation of operability, as is required of prior art systems. Therefore, the system may be incorporated into other physical assemblies of the lighting system, such as a lighting fixture, or a junction box, or the wall switch junction box itself. This feature is a notable advance over the prior art, and deserving of patent protection.

Indeed, the product incorporating the present invention has been recognized within the lighting industry as a product of merit. Applicant has appended hereto as Exhibit A an award given to the product (EPC-A Emergency Power Transfer Control) as Best in Category at the Lightfair International 2003 Exposition. In addition, Exhibit B, the EPC-A product brochure, has been added to confirm that the product so honored incorporates the present invention. Note that the brochure drawings and description closely match the present application. This award is a clear statement of recognition of the significance and usefulness of the invention, which is an important secondary indication of the non-obviousness of the invention.

It is asserted that all claims now presented are allowable, and that this application is in condition to be issued. Action toward that end is earnestly solicited.

Respectfully Submitted,



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